

**Statewide Rule 13:  
Surface Casing Exceptions**  
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August 2016

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**Session Description**

- Discussion of some key terms in Statewide Rule 13
- Statewide Rule 13 Exceptions
- “Potential Flow Zones”
- Important info and Q&A




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**Intent §3.13(a)(1)**

- Securely anchor casing
- Isolate and seal off all useable quality water zones
- Isolate all productive zones, potential flow zones and zones with corrosive formation fluids




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### Terms of Interest §3.13(a)(2)

- Zone of Critical Cement
- Protection Depth
- Stand under pressure
- Productive Zone
- Potential Flow Zone



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### Statewide Rule 13 (1 of 3)

- §13(a)(1)
  - Compliance with rule 13 required for all wells spudded on or after January 1, 2014
- §13(a)(3)
  - References to wellbore diameter
- §13(a)(4)
  - References to casing standards, cement standards and zonal isolation requirements



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### Statewide Rule 13 (2 of 3)

- §13(a)(6)(A-B)
  - Well Control
  - Blow Out Preventer Testing Requirements
- §13(a)(6)(C)
  - Drilling Fluid Programs



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### Statewide Rule 13 (3 of 3)

- §13(a)(7)
  - Hydraulic Fracturing Treatment Casing Tests
  - Minimum Separation Wells
- §13(b)(1)(A)
  - Surface Casing Requirements > 3500'
- §13(b)(1)(I)
  - Mechanical Integrity Test of Surface Casing



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### Surface Casing Requirements

- §3.13(b)(1)(B)
  - Set sufficient casing to isolate all defined usable quality water strata
  - Surface casing must be cemented
  - Cement must be circulated to surface



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### Cement Compressive Strengths

- §3.13(b)(1)(D)
  - Critical Zone cement > 1200 psi in 72 hours
  - Filler cement > 250 psi in 24 hours
  - API free water separation less than 2 mL water/250 mL
  - RRC may require a better cement mixtureTest slurries according to API RP 10 B
  - Sample analysis



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## Alternative Requirements

- §13(b)(1)(H)
  - Operator may request authority to set more or less casing than the required protection depth
  - Alternative programs require approval by the appropriate District Director



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## SWR 13 Exceptions

**RRC ONLINE SYSTEM** Choose an Application | Go | Log In

**Log In**  
Log in to access the RRC Online System.

User ID:   
Password:   [Forgot Password?](#) OR [Forgot User ID?](#)

The RRC Online System allows authorized entities to electronically file certain forms with the Railroad Commission online or through EDI. Forms processed through this system are ones containing data that has been migrated from the Commission's mainframe to an open system environment. Through the RRC Online System, forms can be filed online over the Internet using a web browser, or data files can be uploaded through the application.

**How to Obtain a User ID:**  
To utilize the Online Filing system, you must have a User ID that is assigned to you by your company's designated Security Administrator. A company or individual may designate a Security Administrator by completing the Security Administrator Designation (SAD) form and mailing it to the RRC. When the SAD form is processed, the Security Administrator will receive a User ID and a temporary initial password. The Security Administrator will be able to log into the RRC Online System using their assigned User ID and create user IDs for users within their company. They will also be able to assign certain electronic filing rights for these accounts, and perform account maintenance activities (such as resetting passwords) when needed.

If you are uncertain whether your company has a security administrator, please email the Commission at [security@rrc.state.tx.us](mailto:security@rrc.state.tx.us).

1. Read the requirements for participating in online filing.
2. Fill out the SAD form.
3. Complete and sign the form then mail it to the RRC, following instructions on Page 2 of the form. When the form is processed, the designated security administrator will receive a User ID and temporary password by email.
4. The security administrator will log into the system and assign User IDs and filing rights.



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## Exceptions Homepage

**Railroad Commission of Texas**

Menu: **Statewide Rule 13 Exception**

Home  
RRC Online  
CONTACT HOME

**My Applications**

Showing 1 of 1 applications

Application Number	Application Status	Last Modified Date	Operator Number	Operator Name	API Number	License #
151441	In Progress	2015-05-18	708602	SCOTT OPERATING, INC.	850705	BEET-1

Showing 1 of 1 applications

Search:

Search Operator  
Search Application  
Application  
New Application  
Help  
User Guide



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## Filing and Well Info Tab

Railroad Commission of Texas

Statewide Rule 13 Exception

Filing and Well Information   Request Information   GAO Information   Exception Information   Attachments   Review

New Application

Enter a GW-1 Application ID and click Look Up GW-1. Additional information from the GW-1 application displays. If the GW-1 application was filed prior to March 16, more details.

Is this a Filing Only Exception Request? ☐ Yes ☒ No

Is this a First Time Filing Request? ☐ Yes ☒ No

GW-1 Application ID: 143024 [Link Up GW-1](#)

Drilling Permit Number: [Link Up DP](#)

Drilling Permit Effective Date:

GAU Area Extent: Radius

Radius Distance: 100

Information from the selected application is prepopulated on the Request Information, GAO Information, Exception Information and Attachments tabs. This information cannot be edited.

Is this exception part of an Area-Wide Request? ☐ Yes ☒ No

Associated Application ID: [Select Associated Application](#)

Previous SBRTS Application

Application Number	Lessee Name	Well No.	Status	Date
8996	LADY A COSTILLA	34	Approved	2016-05-11
8997	LADY A COSTILLA	34	Approved	2016-05-11
8998	LADY A COSTILLA	40	Approved	2016-05-11
8999	LADY A COSTILLA	30	Approved	2016-05-11

**Select a well to duplicate well info from.**

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## Request Information Tab

Application Information

Application Number: 27   Application Status: In Progress

Request Information

Reason for this request: ☐ Economic ☒ Technical ☐ Other

Is this a proposed injection or disposal well? ☐ Yes ☒ No

Is this a Minimum Separation well? ☐ Yes ☒ No

Please explain:

250 characters remaining.

Have there been any blowouts within a mile of this wellbore?

☐ Yes ☒ No

Are there any Injection or Disposal wells within 1/4 mile of the proposed well location?

☐ Yes ☒ No

Are there any water wells within 1/4 mile of this proposed well location?

☐ Yes ☒ No

Has the well been drilled and completed?

☐ Yes ☒ No

Remarks for the application:

500 characters remaining.

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## GAU Information Tab

Statewide Rule 13 Exception

Filing and Well Information   Request Information   GAO Information   Exception Information   Attachments   Review

Before navigating to the next tab, click Save and Continue to update the application information.

Application Information

Application Number: 101442   Application Status: In Progress

GAU Information

GAU Areal Extent: Radius

Radius Distance: 200

Base of Usable Quality Water (feet, determined by GAU): 111

Recommendation Statements

The interval from the land surface to a depth of BUQ feet must be protected.

The base of usable-quality water-bearing strata is estimated to occur at a depth of BUQ feet at the site of the referenced well.

[Save and Continue](#)   [Cancel](#)

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# Exception Information Tab

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# Exemption Information Tab

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# Attachments Tab

**Application Information**

Application Number    421
Application Status:   In Progress

**Attachments**

Attach the necessary files. Then click the **Review** tab to continue application process.

**Mandatory File:** GAU Recommendation Letter

**Upload Files**

Add Attachments + Select One
Comments 
Choose

File	File Name	Size	Type	Comments	View File	Remove
No records found						

**Upload Files**

Add Attachments + GAU Recommen
Comments 
Choose

Jellyfish.jpg

757.5 KB

File	File Name	Size	Type	Comments	view file	Remove
GAU Recommendation Letter	Desart.jpg	845841	image/jpeg		<a href="#">J</a>	<a href="#" style="background-color: #007bff; color: white; padding: 2px 10px; border-radius: 3px;">Remove</a>

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## Potential Flow Zones

- §13(a)(2)(N)
  - RRC will establish and maintain list of potential flow zones and corrosive zones by county
- List is available on website at:
  - <http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info/>
- List to be revised as additional information becomes available




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## Formation Tables

- Formation lists subject to change
- Listed formation tops for reference only
- Compliance with Rule 13 will be based on formation tops listed on completion report




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## Example Formation Table

All listed formations require isolation if encountered in well

Mitchell County			
Formation	Shallow Top	Deep Top	Remarks
Santa Rosa	600	600	possible lost circulation
Yates	600	1,250	overpressured, possible flows
7 Rivers	1,300	1,300	
Tubb	2,000	2,000	
San Andres	1,500	2,400	high flows, H <sub>2</sub> S, corrosive
Glorieta	2,400	2,700	
Wichita	3,300	3,300	
Clearfork	2,500	3,400	
Coleman Junction	3,100	3,600	possible lost circulation
Wolfcamp	4,800	5,300	
Strawn	3,200	5,850	
Odom	6,800	6,900	
Mississippian	6,300	7,900	
Elsenberg	7,200	8,100	




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## Example Formation Table

All listed formations require isolation if encountered in well


KLEBERG COUNTY			
Formation	Shallow Top	Deep Top	Remarks
Miocene / Lagarto / Oakville	1400	6200	
	3000	3300	Kingville Field area H2S Injection/Disposal
	2600	6200	
Catahoula Anahuac	2800	4670	
	3650	3850	Canelo Field area H2S Injection/Disposal
	2800	4670	
Catahoula Frio	2800	14050	
	8550	8750	Canelo Field area H2S Injection/Disposal
	2800	7500	
Vicksburg	6800	9700	
Jackson	11250	11250	



## "Potential Flow Zones"

- Notification in Drilling Permits
    - RRC query will flag with a permit restrictions any new drill permit application filed on or after 01-01-2014, as any amended new drill application that does not have a spud date prior to 01-01-2014
    - The restriction will state that "This well must comply with the new Rule 13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations identified for the county in which you are drilling the well."
    - The approved permit will print out with the information stored in the county table, which is available on the RRC's Internet website.
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## Tubing Exceptions

- §13(b)(4)(A-B) – Tubing
    - All flowing oil wells must be equipped with tubing
    - Exceptions up to 180 days may be administratively granted by the director:
      - Fee is required for tubing exception. No extra fee if already paid for SWR-13 Casing Exception.
      - Subsequent extensions require a RRC order (field rule or individual well)
      - If tubing extension granted by field rule, must pay for field rule tubing extension through same tubing exception process
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## Summary

- Statewide Rule 13 – designed to protect UQW and maintain well control
- Construct wells to prevent Sustained Casinghead Pressure (SCP) and maintain casing integrity
- Call the District Office for assistance



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## Common Questions

- **Q:** Most new Eagle Ford wells are not required to be equipped with tubing for the first six months. Will this apply to all new wells?
  - **A:** Starting January 1, 2014, an administrative exception to install tubing in a flowing well may be granted by the District Director (no field rule amendment required) for 180 days. If a special field rule exception already has been issued for a particular field, that field rule trumps SWR 13, and compliance is based on that field rule.



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## Common Questions

- **Q:** For purposes of documentation and compliance, who is responsible for providing certification of BOP equipment--the rig owner or operator?
  - **A:** The operator to whom the drilling/re-entry permit was issued (or the current well operator, if performing a workover) is responsible for obtaining and providing to the RRC upon request the well control equipment certification.



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### Common Questions

- **Q:** Does the Groundwater Advisory Unit recommendation serve as District Office approval to set surface casing deeper than 3,500'?
- **A:** No; separate authorization must be obtained from the District Office to set surface casing deeper than 3,500', even if the protection depth is deeper than 3,500'. Authorization may be given on an area-wide basis (e.g. radial area, survey & abstract, etc.)



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### Common Questions

- **Q:** Does an operator need to obtain an SWR 13 exception from the District Office to set surface casing below 3500 feet?
- **A:** No, approval to set surface casing below 3,500' is not an exception. However, the operator must notify and receive approval from the District Office prior to setting surface casing deeper than 3,500'. The District Director must approve the method for protection of UQW and maintaining well control. Exceptions will be required to set surface casing greater than 200' below the BUQW.



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### Common Questions

- **Q:** If a disposal/injection permit is issued for a location within ¼ mile of a proposed new well location, is that new permitted disposal/injection zone required to be isolated in the new well?
- **A:** Yes, disposal/injection permits that have been submitted to the Commission are available on the Commission web site.



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### Common Questions

- **Q:** How does an operator determine if a disposal/injection well is within ¼ mile of a new well proposed location and what is required if a disposal /injection well is identified?

- **A:** Research RRC Public GIS site and isolate the disposal/injection interval with cement in new well in accordance with Statewide Rule 13.



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### Common Questions

- **Q:** Does the new rule change the requirements for obtaining a surface casing exception for wells producing at or above the protection depth or for single-string wells?

- **A:** No; a SWR 13 exception is required for all wells producing at or above the BUQW and single-string wells deeper than 1,000'.



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### Common Questions

- **Q:** Can a person drill with brine drilling mud through uncased protection depths to prevent washout of shallow salt beds?

- **A:** The adoption preamble for SWR 13 states that potassium chloride (KCl) may be added to freshwater drilling mud prior to setting surface casing. Permission to use other brines to drill through UQW protection depths may be granted as part of SWR 13 Surface Casing exception request after showing that the drilling fluid program will provide filter cake protection through the UQW interval, or may be added to field rules through the hearing process.



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## Common Questions

- **Q:** Does it count towards the 360 rotating hours when drilling is taking place in the horizontal section and the drill string is “sliding”.
- **A:** No; hours are only counted when the drill string is actually rotating.




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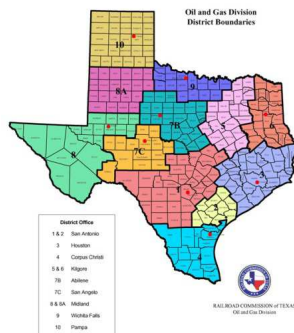
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## Oil and Gas District Offices

Abilene  
Corpus Christi  
Houston  
Kilgore  
Midland  
Pampa  
San Angelo  
San Antonio  
Wichita Falls




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## District Offices

District	City	Address	Phone
1 & 2	San Antonio	115 East Travis St, Suite 1610 San Antonio, TX 78205	(210) 227-1313
3	Houston	1706 Seamist Dr, Suite 501 Houston, TX 77008	(713) 869-5001
4	Corpus Christi	10320 IH 37 Corpus Christi, TX 78410	(361) 242-3113
5 & 6	Kilgore	2005 North State Highway 42 Kilgore, TX 75662	(903) 984-3026
7B	Abilene	3444 North First St, Suite 600 Abilene, TX 79603	(325) 677-3545
7C	San Angelo	622 South Oakes St, Suite J San Angelo, TX 76903	(325) 657-7450
8 & 8A	Midland	10 Destia Dr, Suite 500 E Midland, TX 79705	(432) 684-5581
9	Wichita Falls	5800 Kell Blvd, Suite 300 Wichita Falls, TX 76310	(940) 723-2153
10	Pampa	200 West Foster, Room 300 Pampa, TX 79065	(806) 665-1653




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**William Thompson, P.G.**  
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Phone: (361) 242-3113



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